

REMARKS

Claims 1-5 and 8-15 are pending herein. By this Amendment, claims 6 and 7 have been canceled and claim 13 has been amended to change the dependency of the claim. Thus, no new matter is added by this Amendment.

Applicant appreciates the courtesies shown to Applicants' representative by Examiner Munson in the September 22, 2003 personal interview. Applicant's separate record of the substance of the interview is incorporated into the following remarks.

I. Allowed Claims

Applicant thanks the Examiner for the indication that claims 1-5 are allowed.

II. Rejection Under 35 U.S.C. §112, First, Second and Fourth Paragraphs

Claims 11-15 were rejected under 35 U.S.C. §112, first, second and fourth paragraphs. Specifically, the Patent Office alleged it is unclear how claims 11-13 and 15 further limit the "semiconductor device" of claims 1-7. The Patent Office suggested that claim 11 be written in independent form including all the limitations of claims 1 and 11; claim 12 be rewritten in independent form including the limitations of claims 1, 11 and 12; claim 13 be rewritten in independent form including the limitations of claims 7 and 13; and that claim 15 be rewritten in independent form including the limitations of claims 11, 12 and 15. The Patent Office further alleged that "circuit board" in claims 11 and 12, and "shift registers, level shifters, buffer circuits, and analog switches" in claim 13 are not clearly described so as to enable any person skilled in the art to make and use the claimed inventions. Applicant respectfully traverses this rejection.

The fourth paragraph of 35 U.S.C. §112 requires that a proper dependent claim (1) contain a reference to a claim previously set forth, (2) specify a further limitation of the subject matter claimed, and (3) include every limitation of the claim from which it depends. In other words, a dependent claim is proper under the fourth paragraph of 35 U.S.C. §112 if

the dependent claim cannot be infringed without also infringing the claims from which it depends. See MPEP §608.01(n)(iii).

Here, the respective independent base claim of each of dependent claims 11-15 has been allowed, and claims 11-15 define further aspects of the respective base claim.

More specifically, claim 11 defines a circuit board comprising the semiconductor device according to claim 1. Claim 11 further adds the limitation of wires that supply at least one of signals and electric power to the semiconductor device of claim 1. Because claim 11 requires the semiconductor of claim 1, claim 11 cannot be infringed without also infringing claim 1. Thus, claim 11 is clearly a proper dependent claim in accordance with §112, fourth paragraph.

Claim 12 incorporates every limitation of claims 1 and 11 by reference and further adds limitations to the subject matter claimed in claim 11, thus claim 12 is in proper dependent format. Since claims 14 and 15 each require the semiconductor of claim 1 and the circuit board of claim 11, claims 14 and 15 cannot be infringed without also infringing claims 1 and 11. Thus, claims 14 and 15 are in proper dependent claim format.

Further, claim 13 defines an electro-optical device comprising the semiconductor device according to claim 1 and further adds limitations to the subject matter therein. Because claim 13 requires the semiconductor of claim 1, claim 13 cannot be infringed without also infringing claim 1. Thus, claim 13 is clearly a proper dependent claim in accordance with §112, fourth paragraph.

As each of claims 11-15 are in proper dependent format, the rejection is improper and should be withdrawn.

With respect to the rejections of claims 11-13 for allegedly including terms not clearly described so as to enable any person skilled in the art to make and use claimed inventions,

Applicant submits that each of these terms are commonly known to those skilled in the art, and thus are not indefinite.

Specifically, claims 11 and 12 include the term "circuit board." Applicant submits that the term "circuit board" is commonly and well known and may be defined in, for example, The American Heritage Dictionary of the English Language (4th ed. 2002).

With respect to claim 13, the term "shift register" is defined in technical dictionaries, such as, for example, the online technical dictionary at <http://www.techdictionary.com>; each of the terms "level shifters," "buffer circuits" and "analog switches," may be found in numerous U.S. Patents. For example, a search of U.S. Patent Titles including the terms "level shifters," "buffer circuits" and "analog switches," yields 7, 48 and 8 U.S. Patents, respectively.

Compliance with the first paragraph of §112 is adjudged from the perspective of the person skilled in the pertinent art, (*In re Smith*, 481 F.2d 910, 914, 178 USPQ 620, 624 (CCPA 1973)) and an inventor need not explain every detail since he is speaking to those skilled in the art (*In re Howarth*, 654 F.2d 103, 105, 210 USPQ 689, 691 (CCPA 1981)).

Applicant submits that the terms "circuit board, shift register, level shifters, buffer circuits and analog switches" are each terms commonly known in the art and the skilled artisan would have no trouble fabricating, for example, a circuit board including the semiconductor of claim 1.

For the foregoing reasons, reconsideration and withdrawal of this rejection are respectfully requested.

III. Claim Rejection Under 35 U.S.C. §102(a) (b) and (e)

Claims 6-10 were rejected under 35 U.S.C. §102(a) (b)and (e) as allegedly being anticipated by Inoue. Specifically, the Patent Office refers to Figs. 8, 16-18 and 24 of Inoue. This rejection is respectfully traversed.

Applicant herein cancels claims 6 and 7. As such, the rejection of these claims is now moot.

Claims 8 and 9 recite in part, a region formed of an intrinsic semiconductor which is not doped with dopant, the region extending towards at least one of the source region and the drain region from the gate electrode.

The channel regions 30 (intrinsic regions) of Fig. 8 of Inoue are formed under the gate electrode.

Accordingly, Inoue fails to teach or suggest a region formed of an intrinsic semiconductor, the region extending toward at least one of the source region and the drain region from the gate electrode, as recited in claims 8 and 9. The region is formed at a different position than described in Inoue.

Further, with respect to claim 10, Applicant submits that claim 10 depends from claim 1 and adds the semiconductor film being formed on an insulating layer. Because claim 1 has been allowed, and claim 10 adds a limitation to allowed claim 1, Applicant submits that claim 10 is also allowable.

For the foregoing reasons, Applicant respectfully submits that Inoue fails to anticipate the subject matter of claims 8-10. Applicant further submits that at least claim 10 is allowable as being dependent on allowed claim 1. Reconsideration and withdrawal of this rejection are respectfully requested.

IV. Claim Rejection Under 35 U.S.C. §103(a)

Claims 6-10 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Inoue. Specifically, the Patent Office alleges it would have been obvious that the channel region 30 of Inoue (Figs. 8A and 8B) is an "intrinsic semiconductor which is not doped with dopant." This rejection is respectfully traversed.

As discussed above, Inoue teaches channel regions 30 (intrinsic regions) formed under the gate electrode. See Figures 8A and 8B. Claims 8 and 9, however, specifically require a region formed of an intrinsic semiconductor, the region extending toward at least one of the source region and the drain region from the gate electrode. As Inoue teaches the channel region formed under the gate electrode, there can be no suggestion or motivation in Inoue to form the channel region extending from the gate electrode, as recited by each of claims 8 and 9.

Accordingly, Applicant respectfully submits that Inoue would not have led one of ordinary skill in the art to the invention of claims 8 and 9.

Further, as discussed above, claims 6 and 7 are canceled and claim 10 depends from allowed claim 1. Accordingly, claim 10 should also be allowable.

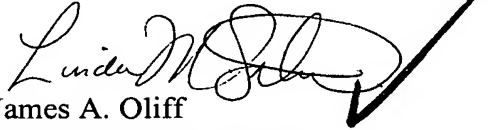
Reconsideration and withdrawal of this rejection are thus respectfully requested.

V. Conclusion

In view of the foregoing remarks, Applicant respectfully submits this application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-5 and 8-15 are earnestly solicited.

Should the Examiner believe that anything further is desirable in order to place this application in better condition for allowance, the Examiner is invited to contact the Applicant's representative at the telephone number listed below.

Respectfully submitted,



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